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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2013-0254; Notice No. 13-09]

Federal Railroad Administration

[Safety Advisory 2013-07]

Safety and Security Plans for Class 3 Hazardous Materials Transported by Rail

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA) and Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Notice of Safety Advisory.

SUMMARY: PHMSA and FRA are issuing this safety advisory as a follow-up to the agencies' joint safety advisory published on August 7, 2013 and FRA's Emergency Order No. 28 published that same day, both of which relate to the July 6, 2013, catastrophic accident in Lac-Mégantic, Quebec. In this safety advisory, PHMSA and FRA are reinforcing the importance of proper characterization, classification, and selection of a packing group for Class 3 materials, and the corresponding requirements in the Federal hazardous materials regulations for safety and security planning. In addition, we are reinforcing that we expect offerors by rail and rail carriers to revise their safety and security plans required by the Federal hazardous materials regulations, including the required risk assessments, to address the safety and security issues identified in FRA's Emergency Order No. 28 and the August 7, 2013, joint Safety Advisory.

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SUPPLEMENTARY INFORMATION:

On July 6, 2013, a catastrophic railroad accident occurred in Lac-Mégantic, Quebec, Canada when an unattended freight train containing hazardous materials rolled down a descending grade and subsequently derailed. The derailment resulted in multiple explosions and subsequent fires, which caused the confirmed death of forty-two people and presumed death of five more, extensive damage to the town center, clean-up costs, and the evacuation of approximately 2,000 people from the surrounding area. While the Transportation Safety Board of Canada (TSB) is still investigating the cause of the Lac-Mégantic accident, the catastrophic consequences of the accident and the known increase over the last several years in the rail transportation of Class 3 hazardous materials has made clear the need to review existing regulations and industry practices related to such transportation. PHMSA and FRA have worked closely to take a number of actions intended to prevent similar incidents from occurring in the United States and the agencies will continue to do so.

This Safety Advisory is intended to follow-up on PHMSA and FRA’s actions to date to address the safety and security of the rail transportation of Class 3 hazardous materials, including FRA’s Emergency Order No. 28 (78 FR 48218 (EO 28)); the agencies’ Joint Safety Advisory published on August 7, 2013 (78 FR 48224) (First Joint Advisory); the initiation of a comprehensive review of operational factors that affect the transportation of hazardous materials by rail (78 FR 42998); the referral of safety issues related to EO 28 and the First Joint Advisory to FRA’s Railroad Safety Advisory Committee (78 FR 48931); and the publication of an advance notice of proposed rulemaking responding to eight petitions for rulemaking related to the

transportation of hazardous materials by rail (78 FR 54849). In this Safety Advisory, PHMSA and FRA are once again reinforcing the importance of proper characterization, classification, and selection of a hazardous materials packing group as required by the Federal hazardous materials law (49 U.S.C. §§ 5101-5128) and Hazardous Materials Regulations (HMR; 49 CFR parts 171-180). The agencies are also emphasizing that offerors of hazardous materials by rail and rail carriers should have reviewed and revised, as appropriate, their safety and security plans required under Subpart I of Part 172 of the HMR, including the required risk assessments, to address the safety and security issues identified in EO 28 and the First Joint Advisory.

I. Safety and Security Plans as they pertain to Class 3 Materials.

Each person who offers for transportation in commerce or transports in commerce certain hazardous materials, including Class 3, packing group (PG) I or II materials that are offered for transportation or transported in a large bulk quantity, must develop and adhere to a transportation safety and security plan that conforms to the requirements of the HMR. See 49 CFR part 172, subpart I. A large bulk quantity, is defined in § 172.800(b), for a Class 3, PG I or II material as a quantity of 792 gallons (3,000 liters) or more in a single bulk packaging (e.g., cargo tank motor vehicle, portable tank, tank car, or other bulk container).

A safety and security plan must include components addressing personnel security, unauthorized access, and en route security. See 49 CFR § 172.802. The HMR set forth general requirements for a safety and security plan's components rather than a prescriptive list of specific items that must be included. The HMR establish a performance standard providing offerors and rail carriers with the flexibility necessary to develop safety and security plans addressing their individual circumstances and operational environments. Accordingly, each safety and security plan may differ because it will be based on an offeror's or a carrier's individual assessment of

the safety and security risks associated with the specific hazardous materials it ships or transports and its unique circumstances and operational environment.

II. Responsibilities of Offerors of Hazardous Materials and Rail Carriers

As stated above, PHMSA and FRA expect that as a result of EO 28 and the First Joint Advisory, hazmat offerors by rail and railroad carriers have reviewed and revised, as appropriate, their safety and security plans, including the required underlying risk assessments, to address the safety and security issues identified in FRA's Emergency Order No. 28 and the First Joint Advisory.

A. Offerors

As applied to offerors of hazardous materials by rail, PHMSA and FRA expect that in light of EO 28 and the First Joint Advisory, offerors have reviewed their safety and security plans to ensure that all materials subject to the regulatory requirement are, in fact, properly classified, described, and packaged in accordance with the HMR. The HMR require offerors of hazardous materials to properly classify and describe the hazardous material being offered for transportation. 49 CFR § 173.22. As part of this process, proper characterization of a hazardous material (considering the material's underlying chemical properties, corrosivity, and other characteristics) is fundamental to ensuring the selection of proper packaging and that the hazards of the materials are properly described in the required shipping documentation. Proper characterization will identify properties that may not affect classification, but will affect the integrity of the packaging or present additional hazards, such as corrosivity, sulfur content and dissolved gas content. Ensuring the proper classification, characterization, and PG assignment of a hazardous material is a key building block of the HMR, and is especially important for assessing risks and developing a safety and security plan. To aid in this process, we are emphasizing key definitions and information from 49 CFR §§ 173.120 and 173.121 regarding

the proper classification and packing group assignment for petroleum crude oil, namely: the definitions of flash point, flammable liquid, combustible liquid and packing group. We are also emphasizing the following applicable shipping names and packing groups as they pertain to the transportation of petroleum products:

- i. *Crude oil.* Petroleum crude oil, UN 1267, is specifically listed in the Hazardous Materials Table (49 CFR § 172.101) as a Class 3 material, in Packing Groups I, II, or III.
- ii. *Sour crude.* Petroleum sour crude, oil, flammable, toxic, UN 3494, is specifically listed in the Hazardous Materials Table (49 CFR § 172.101) as a Class 3 material, in Packing Groups I, II, or III.

Offerors of hazardous materials for transportation by rail must ensure that their current practices and operations align with HMR requirements, especially in regard to existing safety and security planning requirements for Class 3 materials.

B. Carriers

EO 28 prohibits railroads from leaving trains or vehicles transporting certain types and quantities of hazardous materials unattended on a mainline track or a mainline siding outside of a yard or terminal, until the railroad develops, adopts, and complies with a plan that identifies specific locations and circumstances where the railroad has determined that such trains or vehicles may be safely left unattended. Accordingly, EO 28 requires railroads to implement “securement plans” to leave unattended any train or vehicle transporting the identified hazardous materials on a mainline track or siding outside of a yard or terminal. FRA and PHMSA would like to clarify that although these “securement plans” are separate and distinct from the safety and security plans required by the HMR, the agencies expect rail carriers that have developed and implemented “securement plans” as provided for in EO 28 to evaluate the

safety and security risks of leaving the equipment subject to the plan unattended and review and revise, as appropriate, their corresponding safety and security plans, including the required underlying risk assessment, required by the HMR to reflect the increased risk of leaving the equipment unattended.

III. PHMSA's and FRA's Enforcement Efforts

PHMSA and FRA are assessing regulated entities' compliance with the expectations outlined in the First Joint Advisory and this safety advisory to ensure the safe transportation of hazardous materials by rail. Recently, PHMSA initiated "Operation Classification." This compliance investigation initiative involves unannounced inspections and testing by PHMSA and FRA to verify the material classification and packing group assignments selected and certified by offerors of petroleum crude oil. In addition, PHMSA is accompanying FRA on audits to evaluate safety and security plans and to determine whether the plans address vulnerabilities highlighted in EO 28 and the First Joint Advisory. FRA is also conducting additional inspections to determine compliance with EO 28.

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